

INTERNATIONAL SEARCH REPORT

International Application No
PCT/NL2004/000018

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07C209/50 C07D295/02 B01J23/26 B01J23/28 B01J23/36
B01J23/60 B01J23/62 B01J23/64 B01J23/80 B01J23/84
B01J23/86 B01J23/885 B01J23/89

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07C C07D B01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 035 353 A (KANETAKA JUNICHI ET AL) 12 July 1977 (1977-07-12) claim 1	1-25
X	HIROSAWA C ET AL: "Hydrogenation of Amides by the Use of Bimetallic Catalysts Consisting of Group 8 to 10, and Group 6 or 7 Metals" TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 37, no. 37, 9 September 1996 (1996-09-09), pages 6749-6752, XP004088084 ISSN: 0040-4039 cited in the application the whole document	1-27

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"A" document member of the same patent family

Date of the actual completion of the international search

10 September 2004

Date of mailing of the international search report

01.12.2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 286 280 A (BP CHEM INT LTD) 12 October 1988 (1988-10-12) page 5, line 13 - line 18; claim 1 -----	1-27
A	US 4 772 750 A (HABERMANN CLARENCE E) 20 September 1988 (1988-09-20) claim 2 -----	1

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 8.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-27 (in part)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: claims 1-27 (in part)

Claims 1-24 insofar the catalyst is chosen from A1B1C1, claims 25-27 if they comprise one or more catalysts A1B1C1.
Claims 1-24 insofar the catalyst is chosen from A2B2, claims 25-27 if they comprise one or more catalysts A2B2. in which AxByCz are defined below

1.1. claims: 1-27 (in part)

Claims 1-24 insofar the catalyst is chosen from A1B1C1, claims 25-27 if they comprise one or more catalysts A1B1C1.

1.2. claims: 1-27 (in part)

Claims 1-24 insofar the catalyst is chosen from A2B2, claims 25-27 if they comprise one or more catalysts A2B2.

Inventions 2-38: claims 1-27 (in part)

Inventions 2-18: Claims 1-24 insofar the catalyst is chosen from A1B1C2, A1B1C3, A1B2C1, A1B2C2, A1B2C3, A1B3C1, A1B3C2, A1B3C3, A2B1C1, A2B1C2, A2B1C3, A2B2C1, A2B2C2, A2B2C3, A2B3C1, A2B3C2, A2B3C3, respectively.
claims 25-27 if they comprise one or more of these catalysts

Inventions 19-38: Claims 1-24 insofar the catalysts is chosen from A1B1, A1B2, A1B3, A2B1, A2B3, A1C1, A1C2, A1C3, A2C1, A2C2, A2C3, B1C1, B1C2, B1C3, B2C1, B2C2, B2C3, B3C1, B3C2, B3C3 respectively.
claims 25-27 if they comprise one or more of these catalysts

in which :

A1 = Co or Fe,
A2 = Ir, Pt, Rh or Ru,
B1 = Cr or Mo,
B2 = Re
B3 = V
C1 = Cu
C2 = In
C3 = Zn

Invention 39: claims 28-31

Method for the selection of at least one bi- or trimetallic catalyst

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4035353	A	12-07-1977	JP 1176434 C	14-11-1983
			JP 50089383 A	17-07-1975
			JP 58009108 B	18-02-1983
			JP 1176435 C	14-11-1983
			JP 50089384 A	17-07-1975
			JP 58009109 B	18-02-1983
			BE 829113 A1	17-11-1975
			DE 2459547 A1	19-06-1975
			IT 1024470 B	20-06-1978
			SU 677658 A3	30-07-1979
EP 0286280	A	12-10-1988	CN 88101657 A	09-11-1988
			DE 3864434 D1	02-10-1991
			EP 0286280 A1	12-10-1988
			JP 63255253 A	21-10-1988
			US 4937384 A	26-06-1990
US 4772750	A	20-09-1988	NONE	